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#### **CLAIM AMENDMENTS**

#### 1-3. (canceled)

# 4. (currently amended) A 4-pyrimidineamine according to claim 3 wherein A compound of formula

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} Q$$

wherein:

A is  $A^1$  or  $A^2$ ;

 $A^1$  is  $R^4R^5N-C(O)$ -,

$$R^6$$
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 

# A<sup>2</sup> is chosen from R<sup>7</sup>C(O)NH-, R<sup>7</sup>S(O)<sub>2</sub>NH-, R<sup>4</sup>NH-, and R<sup>4</sup>O-;

Q is chosen from imidazolyl, methylimidazolyl, pyrrolyl, methylpyrrolyl, pyrazolyl, methylpyrazolyl, hydroxymethylimidazolyl, (dimethylaminomethyl)imidazolyl, furanyl, methylfuranyl, thienyl, oxazolyl, thiazolyl, pyridinyl, quinolinyl, 1-methylpyrimidin-2-onyl, phenyl, fluorophenyl, hydroxymethyl, tetrahydropyranyloxymethyl, imidazolylmethyl,

- W is chosen from H, Cl, F, R<sup>8</sup>, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, -OR<sup>8</sup>, -SR<sup>8</sup>, -NR<sup>9</sup>R<sup>10</sup> and 
  NHC(O)R<sup>11</sup>, with the proviso that when Q is imidazolyl, W is not H, Cl, F or

  R<sup>8</sup>;
- R<sup>1</sup> is chosen from alkyl, cycloalkyl, alkenyl, C<sub>1</sub>-C<sub>3</sub>-alkylcycloalkyl, heterocyclyl, C<sub>1</sub>-C<sub>3</sub>-alkylheterocyclyl, aryl, C<sub>1</sub>-C<sub>3</sub>-alkylaryl, heteroaryl, C<sub>1</sub>-C<sub>3</sub>-alkylheteroaryl,

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 $(C_1-C_3-alkyloxy)alkyl, (C_1-C_3-alkyloxy)cycloalkyl, (C_1-C_3-alkylthio)alkyl, (C_1-C_3-alkylthio)cycloalkyl and (C_1-C_3-alkylsulfonyl)alkyl;$ 

- R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;
- R<sup>3</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl, or, when n is zero, R<sup>2</sup> and R<sup>3</sup> taken together may form a 6membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;
- R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to three

aryl or heteroaryl residues, 
$$J^2$$
 and  $J^2$ 

, wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

- $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;
- R<sup>6</sup> is aryl;
- $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;
- R<sup>8</sup> is chosen from alkyl, aryl, heteroaryl, substituted alkyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl; alkylheteroaryl;
- R<sup>9</sup> is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy,

  heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>
  alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>
  alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;
- $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or
- R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally

  containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, 
  CN, -COOH or -COOCH<sub>3</sub>;

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R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

m is zero or one; and

n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

- 5. (original) A 4-pyrimidinamine according to claim 4 wherein:
- Q is chosen from pyrrol-1-yl, imidazol-1-yl, furan-3-yl, 2-methylimidazol-1-yl and 4-methylimidazol-1-yl;
- A is  $R^4R^5N-C(O)$ -;

W is Cl, NHR<sup>9</sup>, N(CH<sub>3</sub>)R<sup>9</sup>, OR<sup>8</sup>, SR<sup>8</sup>, R<sup>8</sup>, morpholin-4-yl, or 
$$N-R^{12}$$

- $R^1$  is chosen from alkyl, cycloalkyl,  $C_1$ - $C_3$ -alkylaryl,  $C_1$ - $C_3$ -alkylcycloalkyl,  $C_1$ - $C_3$ -alkylheterocyclyl,  $C_1$ - $C_3$ -alkylheteroaryl;
- $R^2$ ,  $R^3$  and  $R^5$  are H;
- $R^8$  is  $C_1\text{-}C_4\text{-}alkylaryl$
- $R^9$  is chosen from hydrogen, alkyl, substituted alkyl,  $(C_1-C_4)$ -alkoxy,  $C_1-C_4$ -alkylcycloalkyl,  $C_1-C_4$ -alkylaryl, heterocyclyl,  $C_1-C_4$ -alkylheterocyclyl; and

m and n are zero.

- 6. (original) A 4-pyrimidinamine according to claim 5 wherein W is NHR<sup>9</sup> and
- R<sup>9</sup> is chosen from hydrogen; methyl; ethyl; 2,2,2-trifluoroethyl; allyl; cyclopropyl; 2-cyanoethyl; propargyl; methoxy; methoxyethyl; cyclopropyl; cyclopropylmethyl; (methylthio)ethyl; 3-methoxypropyl; 3-pyridyl; 2-(3-pyridyl)ethyl; 2-(2-pyridyl)ethyl; 3-pyridylmethyl; 4-pyridylmethyl; 4-pyridylmethyl-N-oxide; 2-pyridazinylmethyl; sulfolan-3-yl; 3-tetrahydrofuranyl; 2-tetrahydrofuranylmethyl; 3-(1-imidazolyl)propyl; 1-t-

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butoxycarbonyl-4-piperidinyl; 1-*t*-butoxycarbonyl-4-piperidinylmethyl; 2-(hydroxyimino)propyl; 2-(methoxyimino)propyl; 2-oxo-1-propyl; and

R<sup>14</sup> is chosen from H, Cl, F, CN, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, CF<sub>3</sub>, COOCH<sub>3</sub>, OCH<sub>3</sub>, OH, SO<sub>2</sub>CH<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub> and COOH;

R<sup>15</sup> is chosen from H, OCH<sub>3</sub> and Cl; and

p is 1 or 2.

N—R<sup>12</sup>

7. (original) A 4-pyrimidinamine according to claim 5 wherein W is

 $\quad \text{and} \quad$ 

R<sup>12</sup> is t-butoxycarbonyl, methoxyacetyl or phenyl.

8. (currently amended) A 4 pyrimidinamine according to claim 1 wherein A compound of formula

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} N \xrightarrow{Q}$$

wherein:

Z is CH;

A is

R<sup>1</sup> is chosen from n-butyl; cyclohexylmethyl; cyclopentylmethyl; 2-methylpropyl; 3-methyl-1-butyl; cyclohexyl; 2,2-dimethylpropyl; benzyl; 2-thienylmethyl; 1-

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*t*-butoxycarbonyl-4-piperidinyl; 4-chlorobenzyl; 2-pyranylmethyl; 4-pyranylmethyl; 4-pyranyl and 1,1-dimethylethyl;

R<sup>2</sup> and R<sup>3</sup> are H;

Q is imidazolyl or pyrrolyl;

 $R^6$  is aryl;

R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to three

, wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

 $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;

W is NHR<sup>9</sup>; and

R<sup>14</sup> is chosen from H, Cl, F, CN, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, CF<sub>3</sub>, COOCH<sub>3</sub>, OCH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub> and COOH; and

R<sup>15</sup> is chosen from H, OCH<sub>3</sub> and Cl.

m is zero or one; and

n is zero or one, with the proviso that when A is chosen from  $R^7C(O)NH$ -,  $R^7S(O)_2NH$ -,  $R^4NH$ -, and  $R^4O$ -, m and n cannot both be zero.

9. (currently amended) A pyrimidine according to claim 1 wherein: A compound of formula

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$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} X \xrightarrow{Z} Q$$

#### wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

 $R^4R^5N-C(O)-$ ; Α is

chosen from heteroaryl, aryl, -CH<sub>2</sub>R<sup>13</sup>, -CH=N-OCH<sub>3</sub> and 0 is

chosen from H, Cl, F, R<sup>8</sup>, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, -OR<sup>8</sup>, -SR<sup>8</sup>, -NR<sup>9</sup>R<sup>10</sup> and -W is NHC(O)R<sup>11</sup>, with the proviso that when O is imidazolyl, W is not H, Cl, F or R<sup>8</sup>;

 $R^1$ chosen from isopropyl; n-butyl; cyclohexylmethyl; cyclopentylmethyl; is naphthylmethyl; cyclohexylethyl; 2-methylpropyl; 3-methyl-1-butyl; cyclohexyl; 2,2-dimethylpropyl; benzyl; 2-thienylmethyl; 1-t-butoxycarbonyl-4-piperidinyl; 4-methoxybenzyl; 4-chlorobenzyl; 3,4-dichlorobenzyl; 2pyranylmethyl; 4-pyranylmethyl; 4-pyranyl and 1,1-dimethylethyl; and

R<sup>2</sup>, R<sup>3</sup> and R<sup>5</sup> are H;

chosen from H, aryl, heteroaryl, C1-C4-alkyl substituted with from one to three is

ryl or heteroaryl residues, 
$$J^2$$
 and

aryl or heteroaryl residues, J

, wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub> and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

 $\underline{R}^7$ aryl or  $C_1$ - $C_3$ -alkylaryl; is

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<u>R</u> 8	is	chosen from alkyl, aryl, heteroaryl, substituted alkyl, C <sub>1</sub> -C <sub>4</sub> -alkylaryl, C <sub>1</sub> -C <sub>4</sub> -
		alkylheterocyclyl and C <sub>1</sub> -C <sub>4</sub> -alkylheteroaryl;

- is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy,

  heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>
  alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>
  alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;
- $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or
- R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally

  containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, 
  CN, -COOH or -COOCH<sub>3</sub>;
- R<sup>11</sup> is aryl;
- R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;
- R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;
- m is zero or one; and
- n is zero or one, with the proviso that when A is chosen from  $R^7C(O)NH$ -,  $R^7S(O)_2NH$ -,  $R^4NH$ -, and  $R^4O$ -, m and n cannot both be zero.
- 10. (original) A pyrimidine according to claim 9 wherein:
- R<sup>4</sup> is pyridinyl, pyridinylmethyl, tetrahydronaphthalenyl, indanylmethyl,

- R<sup>16</sup> is chosen from H, Cl, F, CN, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, CF<sub>3</sub>, CH<sub>3</sub>, COOCH<sub>3</sub>, OCH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, SOCH<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub>, tetrazol-5-yl, CONH<sub>2</sub>, C(=NOH)NH<sub>2</sub> and COOH; and
- R<sup>17</sup> is chosen from H, OCH<sub>3</sub>, F and Cl.

(original) A pyrimidine according to claim 9 wherein 
$$R^4$$
 is , one of

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 $J^1$  and  $J^2$  is H and the other is H, Cl or CN and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -O- and -CH<sub>2</sub>N(lower alkyl)-.

# 12. (currently amended) A 2-pyrimidinamine according to claim 1, wherein Y is CH, having the formula A compound of formula

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} N \xrightarrow{N} Q$$

wherein:

A is  $A^1$  or  $A^2$ ;

 $A^{1}$  is  $R^{4}R^{5}N-C(O)-$ ,

$$R^6$$
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 
 $R^6$ 

 $A^2$  is chosen from  $R^7C(O)NH$ -,  $R^7S(O)_2NH$ -,  $R^4NH$ -, and  $R^4O$ -;

Q is chosen from heteroaryl, aryl, -CH<sub>2</sub>R<sup>13</sup>, -CH=N-OCH<sub>3</sub> and

- W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and NHC(O) $R^{11}$ , with the proviso that when Q is imidazolyl, W is not H, Cl, F or  $R^8$ ;
- is chosen from alkyl, cycloalkyl, alkenyl, C<sub>1</sub>-C<sub>3</sub>-alkylcycloalkyl, heterocyclyl, C<sub>1</sub>-C<sub>3</sub>-alkylheterocyclyl, aryl, C<sub>1</sub>-C<sub>3</sub>-alkylaryl, heteroaryl, C<sub>1</sub>-C<sub>3</sub>-alkylheteroaryl, (C<sub>1</sub>-C<sub>3</sub>-alkyloxy)alkyl, (C<sub>1</sub>-C<sub>3</sub>-alkyloxy)cycloalkyl, (C<sub>1</sub>-C<sub>3</sub>-alkylthio)alkyl, (C<sub>1</sub>-C<sub>3</sub>-alkylthio)cycloalkyl and (C<sub>1</sub>-C<sub>3</sub>-alkylsulfonyl)alkyl;
- R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring

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structure optionally containing O, S or NR<sup>12</sup>;

- R<sup>3</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl, or, when n is zero, R<sup>2</sup> and R<sup>3</sup> taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;
- R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to three

$$\int_{S, J^2} \int_{And} \int_{J^2} \int$$

aryl or heteroaryl residues, J2

, wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and

CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-

, -CH2CH2O-, -OCH2CH2-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH2-, -

 $\underline{\text{CH}_2\text{N(lower alkyl)-, -S-, -SO-, -SO}_2\text{-, -CH}_2\text{S-, -SCH}_2\text{-, -CH}_2\text{SO-, -SOCH}_2\text{-, -}}$ 

CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

- $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;
- R<sup>6</sup> is aryl;
- $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;
- R<sup>8</sup> is chosen from alkyl, aryl, heteroaryl, substituted alkyl,  $C_1$ - $C_4$ -alkylaryl,  $C_1$ - $C_4$ -alkylheteroaryl; and  $C_1$ - $C_4$ -alkylheteroaryl;
- R<sup>9</sup> is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy,

  heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>
  alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>
  alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;
- $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or
- R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally

  containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, 
  CN, -COOH or -COOCH<sub>3</sub>;
- R<sup>11</sup> is aryl;
- R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;
- R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;
- m is zero or one; and

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# n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

- 13. (previously amended) A 2-pyrimidinamine according to claim 12 wherein Q is chosen from imidazolyl, pyrrolyl, pyridinyl, fluorophenyl and 2-thienyl.
- 14. (original) A 2-pyrimidinamine according to claim 13 wherein

A is  $R^4R^5N-C(O)$ -;

W is H, Cl, NHR<sup>9</sup> or OR<sup>8</sup>;

R<sup>1</sup> is chosen from alkyl and C<sub>1</sub>-C<sub>3</sub>-alkylcycloalkyl;

 $R^2$ ,  $R^3$  and  $R^5$  are H;

 $R^4$  is  $C_1$ - $C_4$ -alkylaryl or  $C_1$ - $C_4$ -alkylheteroaryl;

 $R^8$  is  $C_1$ - $C_4$ -alkylaryl;

 $R^9$  is chosen from hydrogen, alkyl, fluoroalkyl,  $(C_1-C_4-alkoxy)$ alkyl,  $(C_1-C_4-alkylthio)$ alkyl,  $C_1-C_4-alkylcycloalkyl$ ,  $C_1-C_4-alkylaryl$ , heterocyclyl,  $C_1-C_4-alkylheterocyclyl$ ; and

m and n are zero.

15. (original) A 2-pyrimidinamine according to claim 14 wherein W is NHR<sup>9</sup> and

$$R^9$$
 is  $R^{14}$  wherein

 $R^{14}$  is chosen from H, F, Cl, CN, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, CF<sub>3</sub>, COOCH<sub>3</sub>, OCH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub> and COOH; and

R<sup>15</sup> is chosen from H, OCH<sub>3</sub> and Cl.

### 16-17. (canceled)

18. (currently amended) A 4-pyrimidinamine according to claim 17 wherein: A compound of formula

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$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} N \xrightarrow{N} Q$$

### wherein:

A is  $R^4R^5N-C(O)$ -;

Q is is chosen from imidazolyl and pyrrolyl;

W is NHR<sup>9</sup>;

R<sup>1</sup> is chosen from cyclohexylmethyl; 2-methylpropyl and 3-methyl-1-butyl;

R<sup>2</sup>, R<sup>3</sup> and R<sup>5</sup> are H; and

R<sup>4</sup> and R<sup>9</sup> are benzyl or substituted benzyl;

m is zero; and

n is zero.

19-25. (canceled)

# 26. (currently amended) A compound according to claim 1 wherein A compound of formula

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} Z \xrightarrow{Q}$$

# wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

A is  $A^1$  or  $A^2$ ;

 $A^1$  is  $R^4R^5N-C(O)$ -,

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- A<sup>2</sup> is chosen from R<sup>7</sup>C(O)NH-, R<sup>7</sup>S(O)<sub>2</sub>NH-, R<sup>4</sup>NH-, and R<sup>4</sup>O-;
- Q is chosen from heteroaryl, aryl, -CH<sub>2</sub>R<sup>13</sup>, -CH=N-OCH<sub>3</sub> and



- W is chosen from H, Cl, F, R<sup>8</sup>, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, -OR<sup>8</sup>, -SR<sup>8</sup>, -NR<sup>9</sup>R<sup>10</sup> and 
  NHC(O)R<sup>11</sup>, with the proviso that when Q is imidazolyl, W is not H, Cl, F or

  R<sup>8</sup>;
- R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;
- R<sup>3</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl, or, when n is zero, R<sup>2</sup> and R<sup>3</sup> taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;

- R<sup>4</sup> is is having the R configuration at the carbon indicated with an asterisk, wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -
- SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;
- $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;
- R<sup>6</sup> is aryl;
- $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;

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 $R^8$  is chosen from alkyl, aryl, heteroaryl, substituted alkyl,  $C_1$ - $C_4$ -alkylaryl,  $C_1$ - $C_4$ -alkylheterocyclyl and  $C_1$ - $C_4$ -alkylheteroaryl;

 $\frac{R^9}{\text{is}} \frac{\text{chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy,}}{\text{heteroaryl, fluoroalkyl, $C_1$-$C_4$-alkylcycloalkyl, $(C_1$-$C_4$-alkoxy)alkyl, $(C_1$-$C_4$-alkylthio)alkyl, heterocyclyl, $C_1$-$C_4$-alkylheterocyclyl, $C_1$-$C_4$-alkylaryl, and $C_1$-$C_4$-alkylheteroaryl;}$ 

 $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or

R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally

containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, 
CN, -COOH or -COOCH<sub>3</sub>;

R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

- 27. (original) A pyrimidine according to claim 12 wherein R<sup>4</sup> is havin the R configuration at the carbon indicated with an asterisk.
- 28. (currently amended) A compound of formula

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} X \xrightarrow{Z} C$$

wherein:

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two of X, Y and Z are N and the other of X, Y and Z is CH;

A is  $A^1$  or  $A^2$ ;

 $A^{1}$  is  $R^{4}R^{5}N-C(O)$ -,

 $A^2$  is chosen from  $R^7C(O)NH$ -,  $R^7S(O)_2NH$ -,  $R^4NH$ -, and  $R^4O$ -;

Q is chosen from aryl, -CH<sub>2</sub>R<sup>13</sup>, -CH=N-OCH<sub>3</sub> and

heteroaryl other than 1-imidazolyl and 1-triazolyl;

W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and  $-NHC(O)R^{11}$ , with the proviso that when Q is imidazolyl, W may not be is not H, Cl, F or  $R^8$ ;

 $R^1 \qquad \text{is} \qquad \text{chosen from alkyl, cycloalkyl, alkenyl, $C_1$-$C_3$-alkylcycloalkyl, heterocyclyl, $C_1$-$C_3$-alkylheterocyclyl, aryl, $C_1$-$C_3$-alkylaryl, heteroaryl, $C_1$-$C_3$-alkylheteroaryl, $(C_1$-$C_3$-alkyloxy)alkyl, $(C_1$-$C_3$-alkyloxy)cycloalkyl, $(C_1$-$C_3$-alkylthio)alkyl, $(C_1$-$C_3$-alkylthio)cycloalkyl and $(C_1$-$C_3$-alkylsulfonyl)alkyl;}$ 

R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;

R<sup>3</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl, or, when n is zero, R<sup>2</sup> and R<sup>3</sup> taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;

R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to three

aryl or heteroaryl residues, 
$$\int_{2}^{1}$$
 and  $\int_{2}^{1}$ 

wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -

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 $CH_2N(lower\ alkyl)$ -, -S-, -SO-, -SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

 $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;

R<sup>6</sup> is aryl;

 $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;

 $R^8$  is chosen from alkyl, aryl, heteroaryl, substituted alkyl,  $C_1$ - $C_4$ -alkylheterocyclyl and  $C_1$ - $C_4$ -alkylheteroaryl;

R<sup>9</sup> is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy, heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;

 $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or

R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, -CN, -COOH or -COOCH<sub>3</sub>;

R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

## 29. (canceled)

30. (previously amended) A 4-pyrimidinamine according to claim 28, wherein Z is CH, having the formula

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$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} Q$$

31. (original) A 4-pyrimidinamine according to claim 30 wherein Q is chosen from methylimidazolyl, pyrrolyl, methylpyrrolyl, pyrazolyl, methylpyrazolyl, furanyl, methylfuranyl, thienyl, oxazolyl, thiazolyl, pyridinyl, quinolinyl, 1-methylpyrimidin-2-onyl, phenyl, fluorophenyl, hydroxymethyl, 2-imidazolyl, tetrahydropyranyloxymethyl,

imidazolylmethyl, pyrrolylmethyl, -CH=N-OCH<sub>3</sub> and

- 32. (original) A 4-pyrimidinamine according to claim 31 wherein:
- Q is chosen from pyrrol-1-yl, imidazol-1-yl, furan-3-yl, 2-methylimidazol-1-yl and 4-methylimidazol-1-yl;
- A is  $R^4R^5N-C(O)$ -;
- W is Cl, NHR<sup>9</sup>, N(CH<sub>3</sub>)R<sup>9</sup>, OR<sup>8</sup>, SR<sup>8</sup>, R<sup>8</sup>, morpholin-4-yl,  $R^{12}$  ;
- $R^1$  is chosen from alkyl, cycloalkyl,  $C_1$ - $C_3$ -alkylaryl,  $C_1$ - $C_3$ -alkyleterocyclyl,  $C_1$ - $C_3$ -alkylheteroaryl;
- $R^2$ ,  $R^3$  and  $R^5$  are H;
- $R^8$  is  $C_1$ - $C_4$ -alkylaryl
- $R^9$  is chosen from hydrogen, alkyl, substituted alkyl, ( $C_1$ - $C_4$ )-alkoxy,  $C_1$ - $C_4$ -alkylcycloalkyl,  $C_1$ - $C_4$ -alkylaryl, heterocyclyl,  $C_1$ - $C_4$ -alkylheterocyclyl; and

m and n are zero.

33. (original) A 4-pyrimidinamine according to claim 32 wherein W is NHR<sup>9</sup> and

R<sup>9</sup> is chosen from hydrogen; methyl; ethyl; 2,2,2-trifluoroethyl; allyl; cyclopropyl; 2-cyanoethyl; propargyl; methoxy; methoxyethyl; cyclopropyl; cyclopropylmethyl; (methylthio)ethyl; 3-methoxypropyl; 3-pyridyl; 2-(3-pyridyl)ethyl; 2-(2-pyridyl)ethyl; 3-pyridylmethyl; 4-pyridylmethyl; 4-pyridylmethyl-N-oxide; 2-pyridazinylmethyl; sulfolan-3-yl; 3-tetrahydrofuranyl; 2-tetrahydrofuranylmethyl; 3-(1-imidazolyl)propyl; 1-t-butoxycarbonyl-4-piperidinyl; 1-t-butoxycarbonyl-4-piperidinylmethyl; 2-(hydroxyimino)propyl; 2-(methoxyimino)propyl; 2-oxo-1-propyl; and

$$(CH_2)_p$$
 $R^{14}$ 
 $R^{15}$  wherein

- R<sup>14</sup> is chosen from H, Cl, F, CN, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, CF<sub>3</sub>, COOCH<sub>3</sub>, OCH<sub>3</sub>, OH, SO<sub>2</sub>CH<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub> and COOH;
- R<sup>15</sup> is chosen from H, OCH<sub>3</sub> and Cl; and
- p is 1 or 2.
- 34. (original) A 4-pyrimidinamine according to claim 32 wherein W

is 
$$N \longrightarrow R^{12}$$
 and

- R<sup>12</sup> is t-butoxycarbonyl, methoxyacetyl or phenyl.
- 35. (currently amended) A 4-pyrimidinamine according to claim 28 wherein
- Z is CH;
- A is

R<sup>1</sup> is chosen from n-butyl; cyclohexylmethyl; cyclopentylmethyl; 2-methylpropyl; 3-methyl-1-butyl; cyclohexyl; 2,2-dimethylpropyl; benzyl; 2-thienylmethyl; 1-

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*t*-butoxycarbonyl-4-piperidinyl; 4-chlorobenzyl; 2-pyranylmethyl; 4-pyranylmethyl; 4-pyranyl and 1,1-dimethylethyl;

 $R^2$  and  $R^3$  are H;

Q is pyrrolyl;

W is NHR<sup>9</sup>; and

R<sup>14</sup> is chosen from H, Cl, F, CN, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, CF<sub>3</sub>, COOCH<sub>3</sub>, OCH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>,

N(CH<sub>3</sub>)<sub>2</sub> and COOH; and

R<sup>15</sup> is chosen from H, OCH<sub>3</sub> and Cl.

36. (currently amended) A pyrimidine according to claim 28 wherein:

A is  $R^4R^5N-C(0)-\frac{1}{2}$ 

R<sup>1</sup> is chosen from isopropyl; n-butyl; cyclohexylmethyl; cyclopentylmethyl; naphthylmethyl; cyclohexylethyl; 2-methylpropyl; 3-methyl-1-butyl; cyclohexyl; 2,2-dimethylpropyl; benzyl; 2-thienylmethyl; 1-t-butoxycarbonyl-4-piperidinyl; 4-methoxybenzyl; 4-chlorobenzyl; 3,4-dichlorobenzyl; 2-pyranylmethyl; 4-pyranylmethyl; 4-pyranyl and 1,1-dimethylethyl;

R<sup>2</sup>, R<sup>3</sup> and R<sup>5</sup> are H;

R<sup>4</sup> is pyridinyl, pyridinylmethyl, indanylmethyl, furanylmethyl, tetrahydronaphthalenyl,

substituted phenyl, or  $\mathbb{R}^{16}$ 

R<sup>16</sup> is chosen from H, Cl, F, CN, NO<sub>2</sub>, SO<sub>2</sub>NH<sub>2</sub>, CF<sub>3</sub>, CH<sub>3</sub>, COOCH<sub>3</sub>, OCH<sub>3</sub>, SO<sub>2</sub>CH<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub> and COOH; and

R<sup>17</sup> is chosen from H, OCH<sub>3</sub>, F and Cl.

37. (previously amended) A pyrimidine according to claim 28 wherein R<sup>4</sup> is

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- 38. (original) A pyrimidine according to claim 37 wherein one of J<sup>1</sup> and J<sup>2</sup> is H and the other is H, Cl or CN and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -O- and -CH<sub>2</sub>N(lower alkyl)-.
- 39. (previously amended) A 2-pyrimidinamine according to claim 28, wherein Y is CH, having the formula

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} N \xrightarrow{Q} Q$$

- 40. (original) A 2-pyrimidinamine according to claim 39 wherein Q is chosen from pyrrolyl, pyridinyl, fluorophenyl and 2-thienyl.
- 41. (original) A 2-pyrimidinamine according to claim 40 wherein

A is  $R^4R^5N-C(O)$ -;

W is H, Cl, NHR<sup>9</sup> or OR<sup>8</sup>;

R<sup>1</sup> is chosen from alkyl and C<sub>1</sub>-C<sub>3</sub>-alkylcycloalkyl;

R<sup>2</sup>, R<sup>3</sup> and R<sup>5</sup> are H;

 $R^4$  is  $C_1$ - $C_4$ -alkylaryl or  $C_1$ - $C_4$ -alkylheteroaryl;

 $R^8$  is  $C_1$ - $C_4$ -alkylaryl;

 $R^9$  is chosen from hydrogen, alkyl, fluoroalkyl,  $(C_1-C_4-alkoxy)$ alkyl,  $(C_1-C_4-alkylthio)$ alkyl,  $C_1-C_4-alkylcycloalkyl$ ,  $C_1-C_4-alkylaryl$ , heterocyclyl,  $C_1-C_4-alkylheterocyclyl$ ; and

m and n are zero.

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# 42. (original) A 2-pyrimidinamine according to claim 41 wherein W is NHR<sup>9</sup> and

R<sup>15</sup> is chosen from H, OCH<sub>3</sub> and Cl.

# 43. (original) A 2-pyrimidineamine according to claim 39 wherein R<sup>4</sup> is

$$J^1$$
, one of  $J^1$  and  $J^2$  is H and

, one of  $J^1$  and  $J^2$  is H and the other is H, Cl or CN and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -O- and -CH<sub>2</sub>N(lower alkyl)-.

# 44. (previously amended) A 4-pyrimidinamine according to claim 28, wherein X is CH, having the formula

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} N \xrightarrow{N} Q$$

45. (original) A 4-pyrimidinamine according to claim 44 wherein Q is pyrrolyl and m and n are zero.

# 46. (original) A 4-pyrimidinamine according to claim 45 wherein:

A is  $R^4R^5N-C(O)$ -;

W is NHR<sup>9</sup>;

R<sup>1</sup> is chosen from cyclohexylmethyl; 2-methylpropyl and 3-methyl-1-butyl;

R<sup>2</sup>, R<sup>3</sup> and R<sup>5</sup> are H; and

R<sup>4</sup> and R<sup>9</sup> are benzyl or substituted benzyl.

47. (original) A 4-pyrimidineamine according to claim 44 wherein R<sup>4</sup> is

, one of  $J^1$  and  $J^2$  is H and the other is H, Cl or CN and G is

chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -O- and -CH<sub>2</sub>N(lower alkyl)-.

- 48. (currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound according to claim 1 any of claims 4, 9, 12, or 26.
- 49. (original) A pharmaceutical composition according to claim 48 additionally comprising a steroidal or nonsteroidal antiinflammatory drug (NSAID).

50-51. (canceled)

- 52. (original) A pharmaceutical composition according to claim 48 additionally comprising a cyclooxygenase inhibitor.
- 53. (canceled)
- 54. (original) A pharmaceutical composition according to claim 48 additionally comprising a selective cyclooxygenase-2 inhibitor.
- 55. (canceled)
- 56. (original) A pharmaceutical composition according to claim 48 additionally comprising a selective cyclooxygenase-1 inhibitor.

57-58. (canceled)

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59. (original) A pharmaceutical composition comprising a pharmaceutically acceptable

carrier and a compound according to claim 28.

60. (original) A pharmaceutical composition according to claim 59 additionally

comprising a steroidal or nonsteroidal antiinflammatory drug (NSAID).

61. (original) A pharmaceutical composition according to claim 59 additionally

comprising a nonsteroidal antiinflammatory drug (NSAID).

62. (original) A pharmaceutical composition according to claim 61 wherein said NSAID

is chosen from arylpropionic acids, arylacetic acids, arylbutyric acids, fenamic acids,

arylcarboxylic acids, pyrazoles, pyrazolones, salicylic acids; and oxicams.

63. (original) A pharmaceutical composition according to claim 59 additionally

comprising a cyclooxygenase inhibitor.

64. (original) A pharmaceutical composition according to claim 63 wherein said

cyclooxygenase inhibitor is ibuprofen or a salicylic acid derivative.

65. (original) A pharmaceutical composition according to claim 59 additionally

comprising a selective cyclooxygenase-2 inhibitor.

66. (original) A pharmaceutical composition according to claim 65 wherein said selective

cyclooxygenase-2 inhibitor is rofecoxib or celecoxib.

67. (original) A pharmaceutical composition according to claim 59 additionally

comprising a selective cyclooxygenase-1 inhibitor.

68. (original) A pharmaceutical composition according to claim 59 additionally

comprising a steroidal antiinflammatory drug.

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- 69. (original) A pharmaceutical composition according to claim 68 wherein said steroidal antiinflammatory drug is chosen from finasteride, beclomethasone and hydrocortisone.
- 70. (currently amended) A method of treating <u>vasculopathy</u> a condition resulting from inappropriate bradykinin receptor activity comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound of formula I

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} X \xrightarrow{Z} Q$$

wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

A is  $A^1$  or  $A^2$ ;

 $A^{1}$  is  $R^{4}R^{5}N-C(O)$ -,

A<sup>2</sup> is chosen from R<sup>7</sup>C(O)NH-, R<sup>7</sup>S(O)<sub>2</sub>NH-, R<sup>4</sup>NH-, and R<sup>4</sup>O-;

Q is chosen from heteroaryl, aryl, -CH $_2$ R $^{13}$ , -CH=N-OCH $_3$  and

W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and  $-NHC(O)R^{11}$ , with the proviso that when Q is imidazolyl, W is not may not be H, Cl, F or  $R^8$ ;

R<sup>1</sup> is chosen from alkyl, cycloalkyl, alkenyl, C<sub>1</sub>-C<sub>3</sub>-alkylcycloalkyl, heterocyclyl, C<sub>1</sub>-C<sub>3</sub>-alkylheterocyclyl, aryl, C<sub>1</sub>-C<sub>3</sub>-alkylaryl, heteroaryl,

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 $C_1-C_3-alkylheteroaryl, \ (C_1-C_3-alkyloxy)alkyl, \ (C_1-C_3-alkyloxy)cycloalkyl, \ (C_1-C_3-alkylthio)alkyl, \ (C_1-C_3-alkylthio)cycloalkyl \ and \ (C_1-C_3-alkylsulfonyl)alkyl;$ 

- R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;
- $R^3$  is H or  $C_1$ - $C_6$ -alkyl, or, when n is zero,  $R^2$  and  $R^3$  taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;
- R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to

three aryl or heteroaryl residues. 
$$J^2$$
 and

F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-,

wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H.

-CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

H or C<sub>1</sub>-C<sub>3</sub>-alkyl, with the proviso that both R<sup>3</sup> and R<sup>5</sup> cannot be alkyl;

R<sup>6</sup> is aryl;

is

 $R^5$ 

 $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;

- $R^8$  is chosen from alkyl, aryl, heteroaryl, substituted alkyl,  $C_1$ - $C_4$ -alkylheterocyclyl and  $C_1$ - $C_4$ -alkylheteroaryl;
- R<sup>9</sup> is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy, heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;

 $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or

R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally

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containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, -CN, -COOH or -COOCH<sub>3</sub>;

R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

#### 71. (canceled)

- 72. (currently amended) The method according to claim 70 wherein said condition resulting from inappropriate bradykinin receptor activity vasculopathy is diabetic vasculopathy, post capillary resistance or diabetic symptoms associated with insulitis.
- 73. (currently amended) The method according to claim 100 72 wherein said diabetic symptoms associated with insulitis comprise hyperglycemia, diuresis, proteinuria and increased nitrile and kallikrein urinary excretion.

### 74-75. (canceled)

- 76. (currently amended) The method according to claim <u>99</u> 75 wherein said pain is chronic pain, pain associated with inflammation or dental pain.
- 77. (currently amended) The method of treating pain or hyperalgesia according to claim 99 75 additionally comprising administering a steroidal or nonsteroidal antiinflammatory drug (NSAID).
- 78. (original) The method of treating pain or hyperalgesia according to claim 77 wherein an NSAID is administered.

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79. (currently amended) The method of treating pain or hyperalgesia according to claim 99 75 additionally comprising administering a cyclooxygenase inhibitor.

- 80. (original) The method of treating pain or hyperalgesia according to claim 79 wherein said cyclooxygenase inhibitor is a selective cyclooxygenase-2 inhibitor.
- 81. (original) The method of treating pain or hyperalgesia according to claim 79 wherein said cyclooxygenase inhibitor is a selective cyclooxygenase-1 inhibitor.

82-94. (canceled)

- 95. (new) The method according to claim 70 wherein said vasculopathy is hypertensive vasculopathy.
- 96. (new) A method of treating asthma comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound of formula I

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} X \xrightarrow{Z} Q$$

wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

A is  $A^1$  or  $A^2$ ;

 $A^{1}$  is  $R^{4}R^{5}N-C(O)$ -,

and

A<sup>2</sup> is chosen from R<sup>7</sup>C(O)NH-, R<sup>7</sup>S(O)<sub>2</sub>NH-, R<sup>4</sup>NH-, and R<sup>4</sup>O-;

Q is chosen from heteroaryl, aryl, -CH<sub>2</sub>R<sup>13</sup>, -CH=N-OCH<sub>3</sub> and

W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and  $-NHC(O)R^{11}$ , with the proviso that when Q is imidazolyl, W is not H, Cl, F or  $R^8$ :

 $R^1 \qquad \text{is} \qquad \text{chosen from alkyl, cycloalkyl, alkenyl, $C_1$-$C_3$-alkylcycloalkyl,} \\ \qquad \qquad \text{heterocyclyl, $C_1$-$C_3$-alkylheterocyclyl, aryl, $C_1$-$C_3$-alkylaryl, heteroaryl,} \\ \qquad \qquad C_1$-$C_3$-alkylheteroaryl, $(C_1$-$C_3$-alkyloxy)alkyl, $(C_1$-$C_3$-alkylcycloalkyl, $(C_1$-$C_3$-alkylthio)alkyl, $(C_1$-$C_3$-alkylthio)cycloalkyl,} \\ \qquad \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkylsulfonylsulfonylsulfonylsulfonylsulfonylsulfonylsulfonylsulfon$ 

R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;

R<sup>3</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl, or, when n is zero, R<sup>2</sup> and R<sup>3</sup> taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;

. R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to

three aryl or heteroaryl residues, 
$$J^2$$

 $\backslash$  , wherein  $J^1$  and  $J^2$  are independently chosen from H,

F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

 $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;

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 $R^6$ is aryl;

 $\mathbb{R}^7$ is aryl or  $C_1$ - $C_3$ -alkylaryl;

 $R^8$ chosen from alkyl, aryl, heteroaryl, substituted alkyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, C<sub>1</sub>is  $C_4$ -alkylheterocyclyl and  $C_1$ - $C_4$ -alkylheteroaryl;

 $R^9$ is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy, heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>- $C_4$ -alkylheterocyclyl,  $C_1$ - $C_4$ -alkylaryl, and  $C_1$ - $C_4$ -alkylheteroaryl;

 $R^{10}$ H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or

R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, -CN, -COOH or -COOCH<sub>1</sub>;

 $R^{11}$ is aryl;

 $R^{12}$ is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

 $R^{13}$ is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be is n zero.

97. (new) A method of treating inflammation comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound of formula I

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} X \xrightarrow{Z} Q$$

wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

 $A^1$  or  $A^2$ ; Α is

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 $A^{1}$  is  $R^{4}R^{5}N-C(O)$ -,

A<sup>2</sup> is chosen from R<sup>7</sup>C(O)NH-, R<sup>7</sup>S(O)<sub>2</sub>NH-, R<sup>4</sup>NH-, and R<sup>4</sup>O-;

Q is chosen from heteroaryl, aryl,  $-CH_2R^{13}$ ,  $-CH=N-OCH_3$  and

W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and  $-NHC(O)R^{11}$ , with the proviso that when Q is imidazolyl, W is not H, Cl, F or  $R^8$ ;

 $R^1 \qquad \text{is} \qquad \text{chosen from alkyl, cycloalkyl, alkenyl, $C_1$-$C_3$-alkylcycloalkyl,} \\ \qquad \text{heterocyclyl, $C_1$-$C_3$-alkylheterocyclyl, aryl, $C_1$-$C_3$-alkylaryl, heteroaryl,} \\ \qquad C_1$-$C_3$-alkylheteroaryl, $(C_1$-$C_3$-alkyloxy)alkyl, $(C_1$-$C_3$-alkyloxy)cycloalkyl, $(C_1$-$C_3$-alkylthio)alkyl, $(C_1$-$C_3$-alkylthio)cycloalkyl,} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \end{cases}$ 

R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;

 $R^3$  is H or  $C_1$ - $C_6$ -alkyl, or, when n is zero,  $R^2$  and  $R^3$  taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;

R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to

three aryl or heteroaryl residues, 
$$\int_{1}^{1} G$$
 and

 $\backslash$  , wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H,

F, Cl, CN,  $NO_2$  and  $CH_3$ , and G is chosen from - $CH_2$ -, - $CH_2CH_2$ -,

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-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

R<sup>5</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, with the proviso that both R<sup>3</sup> and R<sup>5</sup> cannot be alkyl;

R<sup>6</sup> is aryl;

 $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;

 $R^8$  is chosen from alkyl, aryl, heteroaryl, substituted alkyl,  $C_1$ - $C_4$ -alkylaryl,  $C_1$ - $C_4$ -alkylheterocyclyl and  $C_1$ - $C_4$ -alkylheteroaryl;

R<sup>9</sup> is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy, heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;

 $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or

R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, -CN, -COOH or -COOCH<sub>3</sub>;

R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

- 98. (new) The method of claim 97 wherein said inflammation is associated with edema, rhinitis, septic shock, multiple sclerosis, atherosclerosis, Alzheimer's disease, or closed head trauma.
- 99. (new) A method of treating pain or hyperalgesia comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound of

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## formula I

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} Z \xrightarrow{Q}$$

$$X \xrightarrow{V} Y$$

$$I$$

wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

A is  $A^1$  or  $A^2$ ;

 $A^{1}$  is  $R^{4}R^{5}N-C(O)-$ ,

 $A^2$  is chosen from  $R^7C(O)NH$ -,  $R^7S(O)_2NH$ -,  $R^4NH$ -, and  $R^4O$ -;

Q is chosen from heteroaryl, aryl, -CH $_2$ R $^{13}$ , -CH=N-OCH $_3$  and

W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and  $-NHC(O)R^{11}$ , with the proviso that when Q is imidazolyl, W is not H, Cl, F or  $R^8$ ;

 $R^1 \qquad \text{is} \qquad \text{chosen from alkyl, cycloalkyl, alkenyl, $C_1$-$C_3$-alkylcycloalkyl,} \\ \qquad \qquad \text{heterocyclyl, $C_1$-$C_3$-alkylheterocyclyl, aryl, $C_1$-$C_3$-alkylaryl, heteroaryl,} \\ \qquad \qquad C_1$-$C_3$-alkylheteroaryl, $(C_1$-$C_3$-alkyloxy)alkyl, $(C_1$-$C_3$-alkylthio)cycloalkyl,} \\ \qquad \qquad \text{alkyloxy)cycloalkyl, $(C_1$-$C_3$-alkylthio)alkyl, $(C_1$-$C_3$-alkylthio)cycloalkyl,} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \qquad \text{alkyloxy} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \text{alkyloxy} \\ \qquad \text{alkylsulfonyl)alkyl;} \\ \qquad \text{alkyloxy} \\ \qquad \text{alkylsulfonyl)alkyl;} \\ \qquad \text{alkylsulfonyl} \\ \qquad \text{alkylsu$ 

R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;

 $R^3$  is H or  $C_1$ - $C_6$ -alkyl, or, when n is zero,  $R^2$  and  $R^3$  taken together may form

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a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;

R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to

, wherein  $J^1$  and  $J^2$  are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-,

-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>-, -CH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-,

-CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

 $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;

R<sup>6</sup> is aryl;

R<sup>7</sup> is aryl or C<sub>1</sub>-C<sub>3</sub>-alkylaryl;

 $R^8$  is chosen from alkyl, aryl, heteroaryl, substituted alkyl,  $C_1$ - $C_4$ -alkylaryl,  $C_1$ - $C_4$ -alkylheterocyclyl and  $C_1$ - $C_4$ -alkylheteroaryl;

 $R^9$  is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy, heteroaryl, fluoroalkyl,  $C_1$ - $C_4$ -alkylcycloalkyl,  $(C_1$ - $C_4$ -alkoxy)alkyl,  $(C_1$ - $C_4$ -alkoxycarbonyl)alkyl,  $(C_1$ - $C_4$ -alkylthio)alkyl, heterocyclyl,  $C_1$ - $C_4$ -alkylheterocyclyl,  $C_1$ - $C_4$ -alkylheteroaryl;

 $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or

R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, -CN, -COOH or -COOCH<sub>3</sub>;

R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

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n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

100. (new) A method of treating post-capillary resistance or diabetic symptoms associated with insulitis comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound of formula I

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} X \xrightarrow{Z} Q$$

wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

A is  $A^1$  or  $A^2$ ;

 $A^{1}$  is  $R^{4}R^{5}N-C(O)$ -,

 $A^2$  is chosen from  $R^7C(O)NH$ -,  $R^7S(O)_2NH$ -,  $R^4NH$ -, and  $R^4O$ -;

Q is chosen from heteroaryl, aryl, -CH<sub>2</sub>R<sup>13</sup>, -CH=N-OCH<sub>3</sub> and

W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and  $-NHC(O)R^{11}$ , with the proviso that when Q is imidazolyl, W is not H, Cl, F or  $R^8$ ;

 $R^1$  is chosen from alkyl, cycloalkyl, alkenyl,  $C_1$ - $C_3$ -alkylcycloalkyl, heterocyclyl,  $C_1$ - $C_3$ -alkylheterocyclyl, aryl,  $C_1$ - $C_3$ -alkylaryl, heteroaryl,

and

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 $C_1$ - $C_3$ -alkylheteroaryl, ( $C_1$ - $C_3$ -alkyloxy)alkyl, ( $C_1$ - $C_3$ -alkylthio)cycloalkyl alkyl, ( $C_1$ - $C_3$ -alkylthio)cycloalkyl and ( $C_1$ - $C_3$ -alkylsulfonyl)alkyl;

- R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;
- R<sup>3</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl, or, when n is zero, R<sup>2</sup> and R<sup>3</sup> taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;
- R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to

three aryl or heteroaryl residues,

$$\int_{J^2}^{J} \int_{0}^{J} \int_$$

, wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -SO<sub>-</sub>, -SO<sub>-</sub>, -SO<sub>-</sub>, -SO<sub>-</sub>, -SO<sub>-</sub>, -SO<sub>-</sub>, -SO<sub>-</sub>, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>-</sub>, -CH<sub>2</sub>SO<sub>-</sub>, and -SO<sub>2</sub>CH<sub>2</sub>-;

- $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;
- R<sup>6</sup> is aryl;
- $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;
- $R^8$  is chosen from alkyl, aryl, heteroaryl, substituted alkyl,  $C_1$ - $C_4$ -alkylaryl,  $C_1$ - $C_4$ -alkylheterocyclyl and  $C_1$ - $C_4$ -alkylheteroaryl;
- R<sup>9</sup> is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy, heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;
- $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or

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R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, -CN, -COOH or -COOCH<sub>3</sub>;

R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.

101. (new) A method of treating edema comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound of formula I

$$A \xrightarrow{(CH_2)_m} R^2 \xrightarrow{R^3} Z \xrightarrow{Q}$$

wherein:

two of X, Y and Z are N and the other of X, Y and Z is CH;

A is  $A^1$  or  $A^2$ ;

 $A^{1}$  is  $R^{4}R^{5}N-C(O)$ -,

 $A^2$  is chosen from  $R^7C(O)NH$ -,  $R^7S(O)_2NH$ -,  $R^4NH$ -, and  $R^4O$ -;

Q is chosen from heteroaryl, aryl, -CH<sub>2</sub>R<sup>13</sup>, -CH=N-OCH<sub>3</sub> and

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W is chosen from H, Cl, F,  $R^8$ ,  $C_1$ - $C_4$ -alkylaryl,  $-OR^8$ ,  $-SR^8$ ,  $-NR^9R^{10}$  and  $-NHC(O)R^{11}$ , with the proviso that when Q is imidazolyl, W is not H, Cl, F or  $R^8$ ;

 $R^1 \qquad \text{is} \qquad \text{chosen from alkyl, cycloalkyl, alkenyl, $C_1$-$C_3$-alkylcycloalkyl,} \\ \qquad \qquad \text{heterocyclyl, $C_1$-$C_3$-alkylheterocyclyl, aryl, $C_1$-$C_3$-alkylaryl, heteroaryl,} \\ \qquad \qquad C_1$-$C_3$-alkylheteroaryl, $(C_1$-$C_3$-alkyloxy)alkyl, $(C_1$-$C_3$-alkylcycloalkyl, $(C_1$-$C_3$-alkylthio)alkyl, $(C_1$-$C_3$-alkylthio)cycloalkyl,} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \qquad \text{and $(C_1$-$C_3$-alkylsulfonyl)alkyl;} \\ \end{cases}$ 

R<sup>2</sup> is H or C<sub>1</sub>-C<sub>3</sub>-alkyl, or R<sup>1</sup> and R<sup>2</sup> taken together form a 5- to 7-membered ring structure optionally containing O, S or NR<sup>12</sup>;

R<sup>3</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl, or, when n is zero, R<sup>2</sup> and R<sup>3</sup> taken together may form a 6-membered ring, which may be fused to a six-membered saturated or aromatic carbocycle;

R<sup>4</sup> is chosen from H, aryl, heteroaryl, C<sub>1</sub>-C<sub>4</sub>-alkyl substituted with from one to

$$\int_{S_{-}}^{1}$$

and

three aryl or heteroaryl residues,

, wherein J<sup>1</sup> and J<sup>2</sup> are independently chosen from H, F, Cl, CN, NO<sub>2</sub> and CH<sub>3</sub>, and G is chosen from -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>CH<sub>2</sub>-, -O-, -N(lower alkyl)-, -N(lower alkyl)CH<sub>2</sub>-, -CH<sub>2</sub>N(lower alkyl)-, -S-, -SO-, -SO<sub>2</sub>-, -CH<sub>2</sub>S-, -SCH<sub>2</sub>-, -CH<sub>2</sub>SO-, -SOCH<sub>2</sub>-, -CH<sub>2</sub>SO<sub>2</sub>-, and -SO<sub>2</sub>CH<sub>2</sub>-;

 $R^5$  is H or  $C_1$ - $C_3$ -alkyl, with the proviso that both  $R^3$  and  $R^5$  cannot be alkyl;

R<sup>6</sup> is aryl;

 $R^7$  is aryl or  $C_1$ - $C_3$ -alkylaryl;

R<sup>8</sup> is chosen from alkyl, aryl, heteroaryl, substituted alkyl, C<sub>1</sub>-C<sub>4</sub>-alkylaryl, C<sub>1</sub>-

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C<sub>4</sub>-alkylheterocyclyl and C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;

R<sup>9</sup> is chosen from H, alkyl, alkenyl, substituted alkyl, cycloalkyl, aryl, alkoxy, heteroaryl, fluoroalkyl, C<sub>1</sub>-C<sub>4</sub>-alkylcycloalkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxy)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkoxycarbonyl)alkyl, (C<sub>1</sub>-C<sub>4</sub>-alkylthio)alkyl, heterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylheterocyclyl, C<sub>1</sub>-C<sub>4</sub>-alkylheteroaryl;

 $R^{10}$  is H or  $C_1$ - $C_3$ -alkyl, or

R<sup>9</sup> and R<sup>10</sup> taken together may form a 5- to 7-membered ring structure optionally containing O, S, SO, SO<sub>2</sub> or NR<sup>12</sup>, said ring optionally substituted with -OH, -CN, -COOH or -COOCH<sub>3</sub>;

R<sup>11</sup> is aryl;

R<sup>12</sup> is chosen from H, C<sub>1</sub>-C<sub>3</sub>-alkyl, alkoxycarbonyl, methoxyacetyl and aryl;

R<sup>13</sup> is chosen from -OH, -OTHP, 1-imidazolyl, and 1-pyrrolyl;

m is zero or one; and

n is zero or one, with the proviso that when A is A<sup>2</sup>, m and n cannot both be zero.